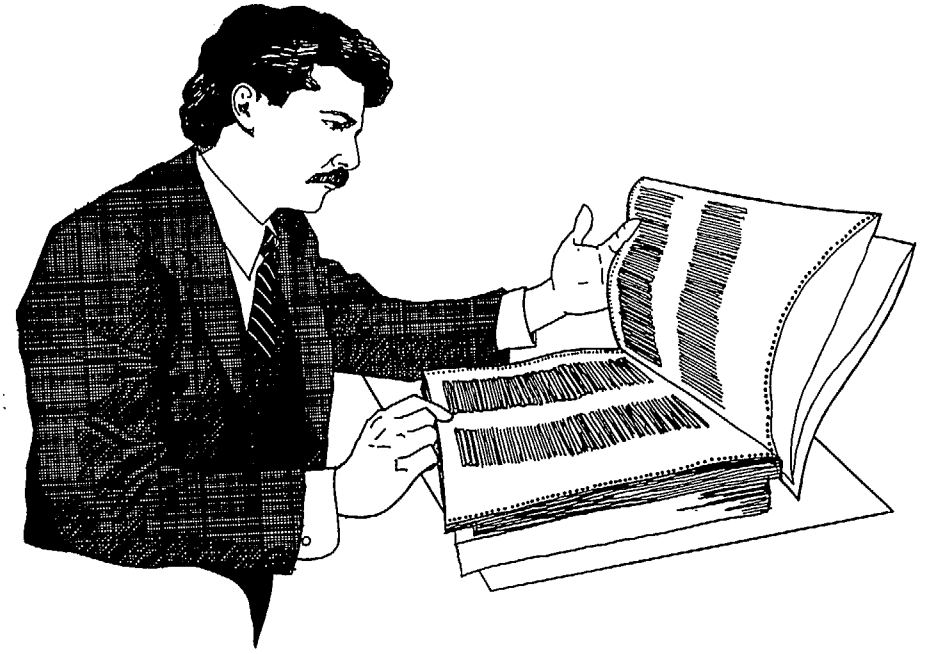
Chapter Eight
FINANCIAL MANAGEMENT AND DEVELOPMENT PROGRAM



Chapter Eight
FINANCIAL MANAGEMENT AND DEVELOPMENT PROGRAM

The analyses conducted in previous chapters have evaluated airport development needs based on forecast activity changes, environmental factors, and operational efficiency. However, one of the most important elements of the master planning process is the application of basic economic, financial, and management rationale so that the feasibility of implementation can be assured. In short, this chapter will concentrate on those factors which will help make the Show Low Municipal Airport Master Plan achievable and successful.

This section of the master plan will become the primary reference for decision makers responsible for carrying out the master plan recommendations. Consequently, this chapter must provide full justification for each recommendation. Proper understanding of the potential ramifications of a decision either for or against a recommendation will be essential. This understanding will be critical in maintaining a realistic and cost effective program that provides maximum benefit to the City of Show Low and the White Mountain Region.

The program outlined on the following pages has been evaluated from a variety of perspectives. The plan is not financially dependent exclusively upon the City of Show Low for financing the recommended facility improvements. In fact, with proper and timely decision making, it may be possible for the City of Show Low to provide $15.2 million in improvements for approximately 16 cents on the dollar. This leverage can be accomplished by obtaining airport development grants from various government agencies and private development.

Several sources for development funding exist which will provide decision makers the means necessary for implementing the program. In fact, the development program is dependent upon other sources of capital to finance the majority of the proposed development.

Nevertheless, the City of Show Low will have to provide a significant share of the development costs. This financial commitment on the part of the city will result in substantial economic benefit to the Show Low area and the White Mountain region and will be repaid many times over through a system of airport leases, fees and charges, and through increased business activity and taxes throughout the region.

The primary source of funds for airport development are the taxes paid by the aviation consumer throughout the country. The process of collecting and distributing aviation user taxes is quite complex but generally follows one basic premise. Aviation goods and services are provided for a fee and taxed at various rates. These taxes are deposited in the Aviation Trust Fund which currently has a balance of over **$7.2 Billion.**

Distribution of the taxes deposited in the Aviation Trust Fund is controlled by the Congress and administered by the FAA. The Congress establishes the funding authorization levels and the FAA establishes priorities for distributing the funds appropriated through the budget process.

The Airport Improvement Program (AIP) was established in 1982, and amended in 1983 and 1987, to provide, in part, for the development of airports throughout the nation. Monies appropriated from the Aviation Trust Fund can provide up to 90 percent of the financing necessary for eligible airport development projects. These monies are distributed to eligible airport sponsors through grants administered by the FAA.

Federal airport development programs similar to AIP date back to 1946 with the Federal Airport Act. The current Airport Improvement Program is scheduled to continue through 1992. One basic underlying assumption in this chapter is that AIP or other similar program will continue to support airport development requirements throughout the planning period.

The primary feature of AIP funding which must be recognized and properly considered is that these funds are distributed on a priority basis. These priorities are established by each FAA Regional Office based upon the number and dollar amount of applications received. Therefore, the City of Show Low will be competing with other airport sponsors in the Western-Pacific Region for development grants.

Since the Airport Improvement Program uses a 91.06/8.94 percent matching formula for airports like Show Low Municipal Airport, federal grants are essential to airport development programs such as is proposed in this Master Plan. Consequently, the approved development program for Show Low Municipal Airport must be continuously coordinated with the FAA. Airport development grants obtained by the city must always be matched by local funds. Therefore, it is important to act expeditiously in securing the ten percent local share for these grants or to have the local share already budgeted for the year in which the grant is expected.

In support of the State Airports System Plan, the State of Arizona also participates in the development of general aviation airports through its Department of Transportation, Aeronautics Division (ADOT). Presently the state may grant up to 50 percent of the local share of FAA eligible projects and 90 percent on some projects not eligible for federal funding. Currently the state has set a maximum grant amount of $432,000 to any eligible airport in fiscal year 1991. Other funding sources are also presented in the various schedules for the individual development projects detailed later in this chapter. As with the federal participation, a similar level of coordination of program needs should be maintained with ADOT Aeronautics.

In addition to the local share on federally or state funded improvements, the City of Show Low will be faced with financing necessary facilities that are not eligible for AIP or

ADOT grants. The direct financing necessary for these projects will be high, and the natural tendency will be to reduce or eliminate basic facilities such as utilities and auto parking from the plans. Again, aviation users are expected to pay at the local level to support these facilities through airport leases, aircraft parking fees, and fuel flowage fees.

The final source for development funding is the private sector. Private development is frequently ignored and often does not receive adequate credit for its investment in the airport. This master plan has identified many areas where private development sources can contribute needed improvements. These improvements will not only benefit the private concerns but will also benefit the airport and the community.

The community's interest in a public airport is to serve the aviation demands of the region and promote the economic well-being of the community. As such, the principal benefactors are local business and industry. Because of the importance of many of the improvements to local business, and subsequently the community as a whole, the public and private sector must work together to ensure that adequate resources are provided and long term financing is available.

AIRPORT DEVELOPMENT SCHEDULE AND COST SUMMARIES

The initial step in establishing an airport development schedule is to determine the cost of each proposed improvement. Cost data used in this study were collected from a variety of sources, including published engineering indices, government agencies and similar airport construction projects. The estimates for each planning period are based on current dollars. A 25 percent contingency for overhead, engineering, administration and unforseen circumstances has been applied to the cost estimates of various development projects.

In future years, as the master plan is implemented, the current cost estimates can continue to serve as management aids by adjusting the 1990-based figures for subsequent inflation. This may be accomplished by converting the interim change in the National Consumer Price Index (CPI) into a multiplier ratio through the following formula:

$$\frac{X}{CPI} = Y$$

Where: X = CPI in any given future year
CPI = National CPI in 1989 (1982 - 84 = 100)
Y = Change ratio (multiplier)

Multiplying the change ratio (Y) times any 1989 based cost estimate (or income or expense figure) presented in this study will yield the adjusted dollar amounts appropriate in any future year reevaluation. This procedure will be needed in the **Continuous Planning Process** section at the end of this chapter. National CPI data should be used, as local or regional measures may vary too widely or may not be available. The CPI information is available from the economic research departments of most banks or the Arizona Department of Commerce.

An airport development schedule takes into consideration not only the demand for facilities but also the financial capability of the airport sponsor and the need to resolve current deficiencies. Development project scheduling has been divided into three major stages, covering the entire planning period. The three planning stages are intended to reflect the relative importance of the development projects to aviation safety and airport efficiency.

The first five-year stage includes those items of critical importance to the overall safe

operation of the airport and its benefit to the community as a whole. The second five-year stage includes those items necessary to tie related development items together and maintain or improve the capacity of the facility. The third long-term phase covering the remaining ten years should include those items necessary to improve efficiency and the overall operational effectiveness of the airport.

Of course, each phase should also include basic maintenance and revenue generating components. As shown in Table 8A below, the total cost for completing all three stages of development at Show Low Municipal Airport will be approximately $15.2 million by the year 2010.

Table 8A
Summary of Total Development Costs
Show Low Municipal Airport

Stage I	(1991-1995)	$5,637,000
Stage II	(1996-2000)	6,538,000
Stage III	(2001-2010)	3,064,000
Total Development Costs		**$15,239,000**

Prior to scheduling individual projects and costs, two key points should be emphasized. First, with few exceptions, the staging of development projects has been based upon the projected activity at the airport. However, actual activity or need may vary from forecast levels. With the exception of those items directly related to safety and resolving current deficiencies the development staging in this section should also be viewed as a projection.

In the event airport activity does not follow projected levels, implementation of projects should be altered to coincide with demand rather than according to an estimated schedule. Therefore, the **Continuous Planning Process** at the end of this chapter has been developed to allow the City of Show Low to adjust the development program based on the various indicators of demand. Second, due to the conceptual nature of a master plan, implementation of recommended capital projects should occur only after further refinement of their design considerations and cost estimates through detailed engineering analyses at the project level.

Stage I development will cover the five year period from 1991 through 1995. At the end of Stage I Show Low Municipal Airport is expected to have approximately 97 based aircraft and an annual traffic volume of 24,500 aircraft operations. During this stage it is important to eliminate existing constraints to future development and alleviate deficiencies or shortages in existing facilities. Stage I will focus on providing those facilities that are necessary for safety and required for a minimum level of aviation service.

Stage I development will concentrate on the proposed development of Runway 6-24 and the land acquisition necessary to support this development. Although the runway construction will occur on existing airport property the land acquisition will be necessary to provide the required Runway Protection Zones (RPZ) and safety areas. Construction of a full length parallel taxiway will improve circulation and eliminate the need to back-taxi on the runway.

In addition to the improvements to Runway 6-24 the other major development project in Stage I will be the construction of a new terminal building and expanded aircraft parking apron. The terminal will accommodate the anticipated commuter air line activity, general aviation and airport administration. The expanded parking apron will provide the necessary gate space for commuter aircraft.

Other landside facility improvements will include reconstruction of the south parking apron and construction of T-hangar or shade facilities. Installation of additional runway and taxiway edge lighting and relocation of visual approach aids will serve to enhance nighttime operations. This development will form the foundation for future development and alleviate the most severe airport constraints and safety deficiencies.

Stage II development includes the five year period from 1996 through 2000. During Stage II the number of aircraft based at Show Low Municipal Airport is expected to grow to 107 aircraft and the annual traffic volume will increase to 28,900 operations.

Development in this stage will focus primarily on improving the operating capabilities of the airport. The primary runway will be widened and strengthened to accommodate larger aircraft. A new crosswind runway will be constructed to provide greater wind coverage and increase safety. Upon completion of the crosswind runway, Runway 3-21 will be abandoned to allow for future terminal area development. This stage will complete the majority of the airside development planned for Show Low Municipal Airport.

The major terminal area development projects in Stage II include expansion of the terminal building and construction of additional T-hangars or shades. The airport Mater Plan should be updated to confirm the construction of the crosswind runway. An Environmental Assessment may be required for the crosswind runway and necessary land acquisition in order to qualify for FAA funding.

Stage III (2001-2010) projects will focus on expanding and improving terminal area facilities. By the end of Stage III activity at Show Low Municipal Airport is expected to increase to 134 based aircraft and 40,200 annual operations. Continued growth in demand for landside services and increased operational activity will require the major development items which highlight this stage. At the completion of Stage III Show Low Municipal Airport will be completely capable of accommodating the aviation activity anticipated during the planning period for the widest range of operating conditions.

The major development items in Stage III will include completing the development of the terminal building and development of an Aircraft Firefighting and Rescue facility. Additional T-hangars and shades will be constructed and the north parking apron will be strengthened. A localizer will be installed to improve the poor weather capabilities of the airport and the fuel farm will be expanded.

There is considerable flexibility built-in to the development staging, therefore, if the local share of the development costs become prohibitive during either of the first two stages, shifting the financial burden to the subsequent stage should be considered. **Exhibit 8A** illustrates the major items associated with the three stages of airport development. Table 8B shows the proposed airport development schedule and project cost summary for all of the recommended development at Show Low Municipal Airport.

The land acquisition necessary for the proposed runway development would ordinarily be eligible for FAA funding. However, since the land is administered by the U.S. Forest Service, and their policies do not permit direct sale of federal land, other methods of acquisition must be used.

Land swap is the most common method for acquiring forest lands. Non-federal land that the Forest Service would like to gain control over is traded for land that the forest service has identified as "suitable for exchange". In both cases the Forest service has identified the lands it wants and the lands it is willing to release.

must acquire non-federal land that the forest service wants, and trade for the desired forest land. The property around the airport has been designated suitable for exchange and could be acquired.

The properties that the forest service wants are not contiguous to the airport and are not needed for airport purposes. Therefore, the FAA will not participate in the acquisition of these properties. However, the value of this land may be used later as the local share towards future FAA grants.

Table 8B
Estimated Development Schedule and Costs Summary
Show Low Municipal Airport

Stage I 1991-1995	Quanitity	Cost
1. Construct FBO Hangar	5,000 SF	$375,000
2. Remove Old Hangar	1 LS	10,000
3. Relocate Rotating Beacon	1 LS	5,000
4. Reconstruct South Apron	20,000 SY	300,000
5. Construct 10-Unit T-Hangar	1 EA	350,000
6. Environmental Assessment	1 LS	40,000
7. Land Acquisition	110 AC	550,000
8. Land Acquisition/Easement	42 AC	210,000
9. Security Fencing	17,000 LF	170,000
10. Expand North Parking Apron	15,000 SY	375,000
11. Construct New Terminal	6,000 SF	600,000
12. Construct Terminal Access	1,200 SY	18,000
13. Extend Runway 6-24 (1,000'x 75')	8,500 SY	850,000
14. Relocate REIL's Runway 6	1 EA	30,000
15. Relocate PAPI's Runway 6	1 EA	20,000
16. Extend Runway 6-24 (200'x 75')	1,700 SY	170,000
17. Relocate REIL's Runway 24	1 LS	30,000
18. Relocate PAPI's Runway 24	1 LS	20,000
19. Construct Parallel Taxiway A	50,000 SY	1,250,000
20. Install MITL Taxiway A	8,800 LF	264,000
Stage I Subtotal		**$5,637,000**

Table 8B (Continued)

Stage II 1996-2000	Quanitity	Cost
1. Expand Terminal Building	6,000 SF	$600,000
2. Relocate MIRL Runway 6-24	7,200 LF	144,000
3. Widen Runway 6-24	20,000 SY	1,000,000
4. Strengthen Runway 6-24	60,000 SY	600,000
5. Construct 10-Unit T-Hangar	1 EA	350,000
6. Update Airport Master Plan	1 LS	75,000
7. Environmental Assessment	1 LS	40,000
8. Land Acquisition	60 AC	300,000
9. Security Fencing	10,900 LF	109,000
10. Land Acquisition/Easement	8 AC	40,000
11. Construct Runway 18-36	47,000 SY	1,880,000
12. Construct Parallel Taxiway B	25,000 SY	1,000,000
13. Obstruction Removal	1 LS	400,000
Stage II Subtotal		**$6,538,000**

Stage III 2001-2010		
1. Install MIRL Runway 18-36	5,600 LF	$168,000
2. Expand Terminal Building	8,000 SF	800,000
3. Expand Auto Parking	4,000 SY	60,000
4. Construct ARFF Facility	5,000 SF	375,000
5. Construct Auto Parking	2,000 SY	30,000
6. Construct 10-Unit T-Hangar	1 EA	350,000
7. Strengthen North Apron	15,600 SY	156,000
8. Install Localizer	1 EA	300,000
9. Install MITL Taxiway B	6,500 LF	195,000
10. Install PAPI-2 Runway 18-36	1 EA	20,000
11. Construct 10-Unit T-Hangar	1 EA	350,000
12. Expand Fuel Farm	1 LS	250,000
13. Remove Old Terminal Building	1 LS	10,000
Stage III Subtotal		**$3,064,000**
Total Development Costs		**$15,239,000**

AC = Acres
LF = Linear Feet
SY = Square Yards
EA = Each
LS = Lump Sum
SF = Square Feet

While the costs of developing the proposed new facilities at Show Low Municipal Airport will be more than $15.2 million, it should be remembered that a large portion of these improvements can be provided at minimal direct cost to the city. Tenants cognizant of the opportunities to conduct business profitably at the airport may provide much of the investment for FBO and hangar facilities.

Optimum funding sources for all the proposed development items will be shown in detail later in the chapter. The development program relies heavily on FAA funding for all eligible projects, however, it must be realized that federal funds will be limited. If federal are not available, state grants may be used to fund 90 percent of the development costs.

AIRPORT OPERATING BUDGET

As with any public facility, development costs are not the only costs to be considered at an airport. Day-to-day operating expenses also become the responsibility of the airport sponsor. It is important that these expenditures be reviewed as well as revenues, to determine the financial health of the airport and how its development needs are to be funded.

Airport financial records have been examined to identify the existing sources of operating revenues and expenses. The proportion of the various revenue sources will indicate where to place emphasis in increasing operational income. The same is true for expenses. Excessive expenses in an expense category will reveal where attention should be placed to reduce the expense or correct a reoccurring problem. All existing airport leases have also been examined to provide additional information on airport revenues.

The Airport Fund income statements for the last five fiscal years were analyzed. Only airport operating revenues and expenses have been analyzed since non-operating expenses such as depreciation do not effect airport cash flow. Non-operating revenues such as contributed capital from FAA or ADOT grants are used on capital improvements and also have no effect on cash flow or operating income.

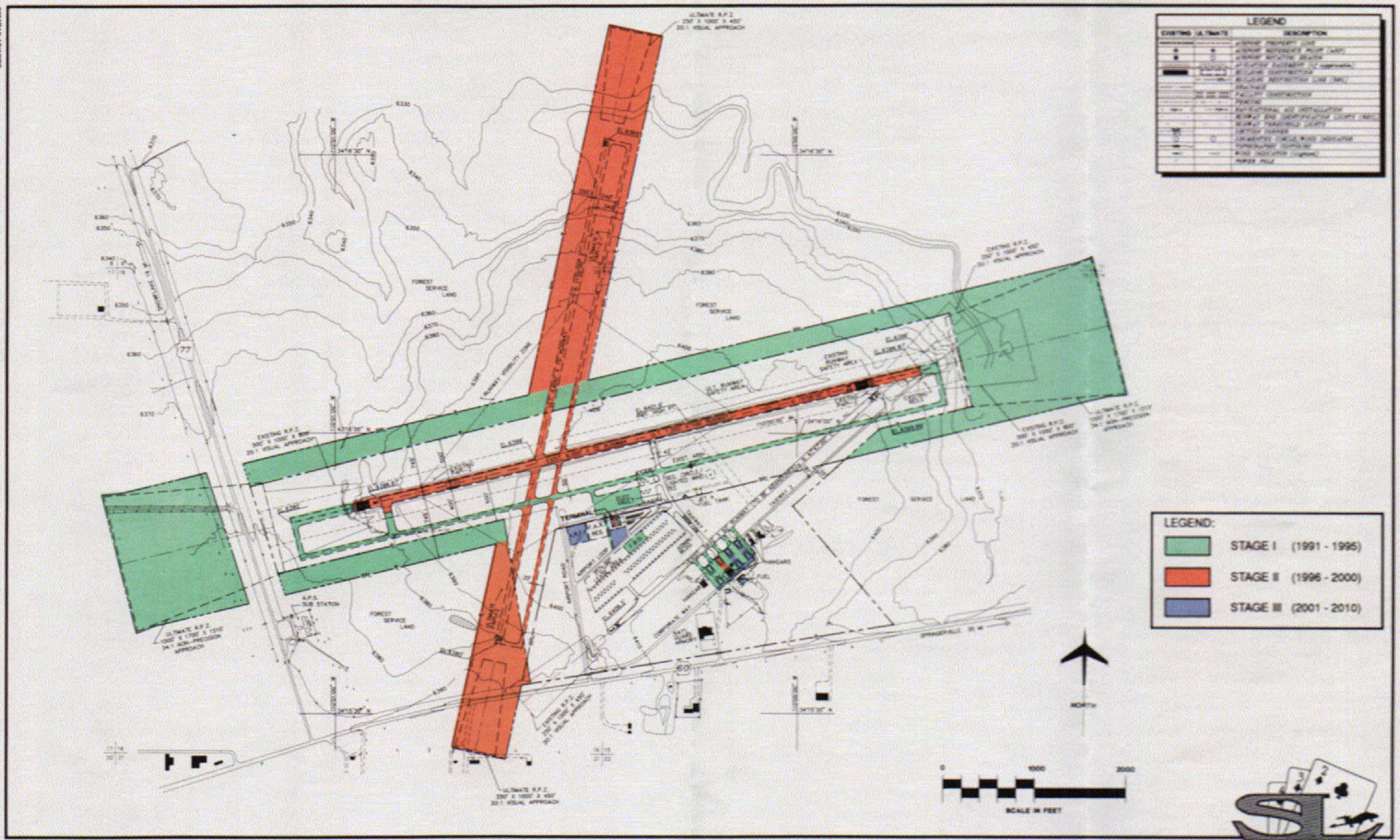
Airport operating revenues are reported in six major categories.

- Oil and Gas Sales
- Auto Parking
- Landing Fees
- Tie Down Fees
- Rentals
- Other Income

Airport operating expenses are reported in nine major expense categories.

- Oil and Gas
- Personnel Services
- Administrative
- Vehicle Expense
- Field Supplies
- Repairs and Maintenance
- Utilities
- Risk Management
- Departmental Expenses

These categories have been reported consistently for the last five years and will be used to project future revenues and expenses.



Show Low
MUNICIPAL AIRPORT

Exhibit 8A
STAGED DEVELOPMENT

Table 8C
Show Low Municipal Airport
5 Year Income Statement

	1986	1987	1988	1989	1990	Average	Percent
REVENUES:							
Oil and Gas	$146,544	$130,494	$164,785	$158,543	$129,689	146,011	76.0
Auto Parking	12,278	14,250	14,989	12,085	10,275	12,775	6.7
Landing Fees	2,725	1,753	2,506	2,017	947	1,989	1.0
Tiedown Fees	22,008	25,763	24,904	19,705	16,912	21,858	11.4
Rentals	5,520	4,791	5,650	4,250	6,187	5,280	2.8
Other Income	2,052	3,667	3,804	3,062	8,182	4,153	2.2
Total Revenue	$191,127	$180,717	$216,637	$199,661	$172,191	$192,066	- -
EXPENSES:							
Oil and Gas	$111,591	$99,313	$117,356	$117,720	$99,291	$109,054	44.0
Personnel Ser.	82,897	80,145	93,541	88,530	89,182	86,739	35.0
Administrative	6,015	3,710	4,587	9,479	7,378	6,234	2.5
Vehicle Expense	8,553	5,780	7,741	6,942	7,780	7,345	3.0
Field Supplies	3,459	2,356	3,154	3,572	3,139	3,136	1.3
Repairs/Main.	1,921	6,925	4,522	5,189	3,218	4,355	1.8
Utilities	8,295	9,166	8,246	8,874	9,380	8,792	3.5
Risk Management	9,303	32,698	25,800	14,699	7,008	17,902	7.2
Depart. Expenses	4,559	4,129	5,004	4,700	3,407	4,360	1.8
Total Expenses	$235,995	$244,222	$269,950	$259,705	$229,710	$247,916	- -
Operating Income (Loss)	($44,868)	($63,505)	($53,313)	($60,044)	($57,519)	($55,850)	- -

As can be seen from the table, Show Low Municipal Airport has consistently run at an annual operating loss of approximately $50,000 to $60,000. This operating deficit will not be easy to eliminate. Revenues will be difficult to increase since the airport competes with other airports in the region. Expenses do not appear to be excessive or unrealistic.

AIRPORT OPERATING REVENUES

The ultimate goal of any airport should be the capability to finance its own operation and development through airport revenues. Unfortunately, few general aviation airports are able to attain this goal. For example, an airport cannot expect to break even when the

fees received from hangar rentals will not adequately amortize the cost of construction. Such is the case all too frequently, making it little wonder that communities often complain about the high cost of maintaining and operating their airport. Even by increasing fees, these airports might not reach the break even point. Yet the effort to become self-sufficient will certainly result in a more positive perception of the airport on the part of the community.

While the goal of the airport should be towards total self-sufficiency, it must be remembered that capital improvements normally increase operating expenses and make it more difficult for existing revenues to keep pace. While much of the development costs can be recaptured over time by adjusting airport user fees, the fees must still remain reasonable and competitive so as not to discourage airport use.

Gas And Oil Sales

The sale of oil and gas at the airport is provided by the City of Show Low. Revenues from fuel purchases are collected by airport personnel and credited to the Airport Fund.

Fuel sales is the largest source of revenue at the airport. Over the past five years, fuel sales accounted for approximately 76 percent of the total operating revenues produced at Show Low Municipal Airport. An increase in fuel sales revenue would have the greatest impact on reducing the operating deficit. In fiscal 1990, revenues from fuel sales averaged $1.55 per gallon.

An alternate means of providing fuel services would be to concession the fueling services and collect a fuel flowage fee. This fee would be based on a per gallon basis and could be included with other FBO lease provisions. This may be advantageous later when airport activity increases, however, the existing system appears to be working well and no immediate change is recommended.

Auto Parking

Auto parking is normally not a significant source of revenue at general aviation airports. However, at Show Low Municipal Airport, auto parking is the third largest revenue source producing approximately 6.7 percent of total annual revenues since 1986.

Parking fees are charged on a monthly basis. The majority of the long term parking is vehicle storage for seasonal visitors. Monthly parking fees are currently set at $10 per month. This fee could be increased to $15 per month and produce approximately $5,000 in additional revenue.

No daily or hourly parking fees are charged and none are recommended. A daily or hourly fee would not produce any significant revenues and would not be cost effective to collect these fees.

Landing Fees

Landing fees are charged on all commercial operations. These fees are currently set at $3.50 per landing. Landing fees are the smallest revenue source for the airport and has provided approximately one percent of total annual airport revenues.

There do not appear to be any direct costs associated with collecting these fees, therefore, landing fees should continue to be charged to all commercial operators. However, collection of all landing fees due, is probably not occurring because of the difficulty in identifying all unscheduled commercial flights.

An alternative to the per landing type of charges would be to charge an annual fee to each commercial operator. The annual fee would eliminate the need to track each aircraft landing and tend to stabilize this source of revenue. Landing fees must be charged on a nondiscriminatory basis and should not serve to discourage airport use.

Landing fees for scheduled airlines are typically charged by aircraft weight for each scheduled landing. This type of fee structure is well suited to air carrier airports but may prove counter productive to an airport such as Show Low Municipal which is trying to attract scheduled airline service at reasonable fares.

Tiedown Fees

Tiedown fees are the second largest source of income to the airport. Over the last five years tiedown fees have accounted for approximately 11.4 percent of total airport operating revenues. There are no direct operating expenses associated with this source of revenue, therefore, tiedown fees should be examined closely for possibilities to increase income from this revenue source.

Local tiedowns are leased to individual aircraft owners on a monthly basis while fees are charged for transient tiedowns on a nightly basis. Tiedown fees will vary with the size and type of aircraft, however, a monthly fee of $35.00 for each local tiedown and $3.50 for each nightly tiedown is considered a minimum.

The current transient tie down fees range from $3.00 per night for single engine aircraft to $4.00 per night for twin-engine aircraft. The local tie down rates are $25.00 per month for single engine aircraft and $30.00 per month for twin-engine aircraft. The existing tie down fees are at the low end of the market scale and could possibly be increased without discouraging airport use. As the number of base aircraft and transient activity continues to increase, so to will this source of revenue.

Rentals

The City of Show Low currently leases several areas of land on the airport. These leases include the Army National Guard, FBOs, and various private individuals for portable hangar facilities. These land leases provide approximately 2.8 percent of the total annual airport operating revenues.

Show Low Municipal Airport is fortunate in that there is surplus land available for lease after the development of all future terminal area facilities. Sizeable areas will remain on the airport that are suitable for commercial and industrial development. This surplus land not only offers flexibility in the development of the airport, but also the potential to significantly increase this revenue source.

Hangar leases can provide a significant source of revenue for most airports. Although airport revenues could be increased through direct hangar rental instead of a land lease and percentage of gross, the investment in hangar construction by the city would require substantial additional capital expenditures. Most of the existing hangar development has been provided by private sources and this trend is expected to continue.

The financial plan recommends that the City of Show Low continue to make land available to the private sector for hangar development. Three advantages accrue to the airport if hangar construction is financed through private sources: immediate cash flow, releasing airport funds for more important projects, and reduced maintenance cost to the airport because facility maintenance is the responsibility of the owners.

Hangar facilities are an essential element of the airport development program. These facilities are important to aircraft owners as well as operators. Hangars can improve the safety of flight by preventing the accumulation of snow or frost on aircraft. If the private sector is unwilling or unable to finance the development of hangar facilities, the City of Show Low should not eliminate these necessary facilities from the development program.

Other Income

This revenue category consists of many smaller and less reliable sources of income. Other Income typically includes such items as weather service payments, interest on assets, and special events. This source of revenue has averaged approximately two percent of total revenues over the last five years.

The City of Show Low provides weather observations and relays this information to the National Weather Service. The weather service pays $1.50 for each observation taken by city staff. Observations are currently taken five times a day, seven days a week. Weather observations provide approximately $2,730 annually to this source of revenue. Interest earned on current assets or long term securities also contributes to this source.

Special event revenue has not been reported in the last five years but might include; airshows, openhouses, fly-ins, competition or entertainment unique to Show Low Municipal Airport. Other Income is a relatively small portion of total revenue, therefore, for planning purposes, this revenue source should not be relied on to support airport development.

AIRPORT OPERATING EXPENSES

Expense records for the airport were reviewed to determine the distribution of expenses. Each of these expense categories are described and discussed in the paragraphs that follow.

Oil And Gas

Oil and gas costs represent the largest expense category at Show Low Municipal Airport. Over the last five years this cost has accounted for approximately 44 percent of total operating expenses.

Comparing this expense category with the Oil and Gas revenues indicates that the operating margin on fuel and oil sales ranges between $0.40 and $0.50 per gallon. However, due to the reduction in airport activity and the fluctuations in the wholesale price of fuel, this margin was reduced to $0.36 per gallon for fiscal year 1990.

As both the wholesale and retail prices vary, it will be important to maintain the $0.45 per gallon margin. Fuel sales are the most important source of income the airport has. If possible the margin on fuel sales should be expanded. However, competitive market forces will need to be watched closely so as not to overprice fuel and reduce sales.

Personnel Services

Personnel services are comprised of salaries, wages, and benefits for airport staff. This expense category has been very consistent over the last five years. Personnel services have averaged approximately 35 percent of total operating expenses.

Airport management and operations staff currently consists of four full time positions. These positions are the Airport Manager and three Operations and Maintenance positions. As activity continues to increase at Show Low Municipal Airport and the type of activity expands to commuter operations, at least one additional staff position should be added.

Administrative

Administrative expenditures include such items as memberships and dues, postage, advertising, travel and training, subscriptions, reproduction, and other contractual services. Historically this expense category has averaged 2.5 percent of total operating expenses.

The Administrative expense category has averaged approximately $6,200 per year. The lack of adequate facilities for airport management and operations has resulted in lower than expected costs in this category. Costs within this expense category are expected to increase throughout the planning period. The expenses can be expected to increase to a more moderate level of up to five percent of total operating expenses.

Vehicle Expense

The vehicle expense category consists of airport vehicle maintenance (parts and labor), and oil and gas used by these vehicles. Over the last five years, vehicle expenses have averaged a little over $7,000 annually or approximately 3.0 percent of total operating expenses.

Vehicle expenses are approximately two-thirds repair and maintenance, and one-third oil and gas. Vehicle expenses can be expected to remain approximately three to five percent of total operating expenses.

Field Supplies

The Supplies category includes various minor supplies or commodities necessary to carry out the day-to-day operations at the airport. Examples include uniforms, electrical and plumbing hardware, equipment rental, and safety equipment. This is the smallest expenses category averaging only 1.3 percent of total operating expenses.

As facilities are expanded and additional staff is necessary, supply costs will increase accordingly. However, these expenses should remain at approximately 1.5 percent of total operating expenses.

Repairs and Maintenance

This expense category will normally account for approximately five percent of total expenditures. However, at Show Low Municipal Airport, this expense category has averaged 1.8 percent of annual operating expenses. Items usually included in this category have been accounted for in other categories producing the lower than expected costs.

This expenses category includes maintenance items not counted in other expense categories. Repairs and maintenance costs in this category are relatively minor, accounting for approximately 1.8 percent of total operating expenses. Over the last five years these costs have averaged slightly over $4,000 and should remain fairly constant.

Utilities

Costs for utilities such as water and electricity comprise this expenses category. Utilities are essential to airport operations and will increase as facilities are constructed or expanded. Utility costs are averaging 3.5 percent of total operating expenses.

Utility costs will increase throughout the planning period, but can be reduced as a percentage of total operating expenses. As facilities are developed and leased, utilities to the lease areas should be metered and charged to the tenant. Utilities to common areas and for airfield facilities will continue to be an expense to the airport.

Risk Management

Risk management is the cost of liability insurance. This cost is a direct cost to the airport since the airport is insured under a separate policy. The city can not operate the airport without insurance and be exposed to the high damage awards paid on aviation claims.

Risk management costs have varied greatly over the last five years. In 1990, this cost was $7,000 and in 1987 insurance coverage cost the airport $32,700. The

average cost for insurance over the last five years was $17,900 or approximately 7.2 percent of total operating expenses. During this period the insurance underwriter changed and several claims were made against the airport, in which the airport pays a $5,000 deductible.

The wide range of cost figures and the exposure of the airport to non-airport related claims against the city makes projecting an accurate insurance cost impossible. However, based on resent costs and trends, $10,000 annually would be a realistic estimate of future insurance costs.

Departmental Expenses

Departmental expenses consist of costs that are unique to the airport. These costs are associated with the retail sale of fuel. Federal excise tax on Avgas and Jet A fuel, and bank costs for credit card sales are reported in this expense category.

Departmental expenses are relatively small and have averaged only 1.8 percent of total operating expenses over the last five years. This expense is directly related to fuel sales and will increase as fuel sales increase. Departmental expenses have averaged approximately 5.1 cents per gallon of fuel sold. However, recently an increase in cash sales has reduced this expense to a little over four cents per gallon.

AIRPORT OPERATING INCOME

The difference between operating revenues and operating expenses produces the operating income (loss) for the airport. Over the last five years operating expenses have exceeded operating revenues by $55,850 annually. This operating deficit has been offset with transfers from other sources of funds within the city.

FINANCING THE LOCAL SHARE OF AIRPORT CAPITAL IMPROVEMENTS

In addition to the revenues derived from airport operations, the City of Show Low has several methods available for financing the local share of airport development costs. The most common methods involve debt financing which amortize the debt over the useful life of the project or a specified period. Methods of debt financing commonly available to the city are discussed below.

GENERAL OBLIGATION BONDS

General Obligation Bonds are a common form of municipal bonds whose payment is secured by the full faith, credit, and taxing authority of the city. General Obligation Bonds are instruments of credit and, because of the community guarantee, reduce the available debt level of the sponsoring community. This type of bond uses tax revenues to retire debt and the key element becomes the approval of the elaborate to a tax levy to support airport development. If approved, General Obligation Bonds are typically issued at a lower interest rate than other type of bonds.

SELF-LIQUIDATING GENERAL OBLIGATION BONDS

As with all General Obligation Bonds, Self-liquidating Bonds are secured by the issuing governmental agency. They are retired, however, by the adequate cash flow from the operation of the facility for which the bonds were issued. However, the state court must determine that the project is self-sustaining and that the debt may legally be excluded from the debt limits of the community.

Since the credit of the local government bears the ultimate risk of default, the bond issue is

still considered, for the purpose of financial analysis, as part of the debt limit of the community. Therefore, this method of financing may mean a higher rate of interest on all bonds sold by the community. The amount of increase in the interest rate depends, in part, upon the degree of exposure risk of the bond. Exposure risk occurs when there is insufficient net airport operating income to cover the level of debt service plus coverage requirements, thus forcing the community to absorb the residual.

REVENUE BONDS

Revenue Bonds are payable solely from the revenue of a particular project or from operating income of the borrowing agency, such as an Airport Authority which lacks taxing powers. Generally, they fall outside of constitutional and statutory limitations and, in many cases, do not require electorate approval. Because of the limitations on other public bonds, airport sponsors are increasingly turning to revenue bonds whenever possible.

However, Revenue Bonds normally carry higher rate of interest because they lack the guarantees of General Obligation Bonds. It should also be noted that the general public would usually be aware of the risk involved with a revenue bond issue for a general aviation airport. Therefore, the sale of such bonds could be more difficult than others.

BANK FINANCING

Some airport sponsors have used bank financing as a means of providing airport development capital. Generally, two conditions are required; the airport must demonstrate the ability to repay the loan plus interest, and the capital improvement must be less than the value of the present facility. These are standard conditions which are applied to almost all bank loan transactions. This method of financing could be particularly useful for smaller development items that will produce revenues and a positive cash flow.

THIRD-PARTY SUPPORT

Several types of funding fall into this category. For example, individuals or interested organizations may contribute portions of the required development funds. Although not a common means of airport financing, the role of private financial contributions not only increases the financial support of the project, but also stimulates moral support to airport development.

Because of the high potential for industrial park development, park developers could be interested in investing in certain development projects such as providing the local share for a runway extension or a lump sum contribution towards general airport improvements.

Another method of third-party support involves permitting the fixed base operator (FBO) to construct his own hangar and maintenance facilities on property leased from the airport. The advantage to this arrangement is that it lowers the local share of development costs, a large portion of which is building construction. However, the disadvantage is that the airport sponsor will receive a smaller percentage of the revenue generated at the airport. For this reason, it is important to consider all eventualities before entering into a specific lease agreement.

COMMUNITY SUPPORT

While it would certainly be advantageous for an airport to support itself, the indirect and tangible benefits of the airport to the economy of the region and its growth must be considered. Approximately ten people are directly employed on the airport by the city, the FBO's or other tenants. As airport

activity increases, it is likely employment on the airport will also grow throughout the planning period. The local construction industry will also benefit throughout the planning period.

The local construction industry will benefit directly from implementation of the development program. The cost of the Master Plan improvements coming from fund sources outside the community will total approximately $10.7 million. In addition to the above Master Plan improvement costs, buildings developed by private investors in new airport lease areas could total another $1.8 million in new construction.

Other community benefits involve business growth and development that is enhanced by the availability of an airport. While it is not likely that industry has or has not located in the Show Low area because of the airport, the fact remains that the major employers in the community benefit extensively from the present of Show Low. Some of these same firms own and operate aircraft that use the airport. Clients and suppliers of businesses in the White Mountain Region will also benefit by the future facilities. This type of extensive use by corporate aircraft is a definite trend across the United States. The trend has been generated in part by the movement of American Industry from the larger metropolitan areas to smaller communities that offer lower taxes and labor costs and a better working environment.

Time is money to corporate executives and corporate aircraft are answering the need for quick access to and from these new locations. The ability of Show Low is to provide convenience access to corporate aircraft will be reflected not only in benefits to existing business and industry, but could be a strong positive factor in attracting new industry to the White Mountain Region.

SUMMARY

Funding for the development of Show Low Municipal Airport over the next twenty plus years will be obtained from several sources. As indicated in Table 8D, federal and state aid will be critical to the funding of proposed developments at Show Low Municipal Airport. It should be remembered however, that both the FAA and ADOT Aeronautics Division strive not to participate in the funding of projects that duplicate facilities within close proximity to one another.

Table 8D
Development Funding Sources
Show Low Municipal Airport

Stage	Federal	State	City/Private	Total
Stage I	$3,420,790	$358,105	$1,858,105	$5,637,000
Stage II	4,978,828	434,586	1,124,586	6,538,000
Stage III	1,533,116	365,442	1,165,442	3,064,000
TOTAL	**$9,932,734**	**$1,158,133**	**$4,148,133**	**$15,239,000**

Show Low Municipal Airport has the capability to serve the majority of the aviation demands of the White Mountain Region. Consequently, Show Low Municipal Airport will more likely be developed to a greater degree than the other airports in the area. These other airports will need to be developed to provide aviation services to their local communities. The developemnt of all the airports throughout the area should be coordinated to avoid duplication and maximize service.

The City of Show Low will need to keep fully abreast of all the potential funding sources and research each source on a continuing basis. The final portions of this chapter deal with this through a process called Continuous Planning. By closely monitoring the aviation activity and availability of funds with the worksheets provided on the following pages, airport management will be able to carry out its function of implementing the master plan.

AIRPORT MANAGEMENT PROGRAM

The successful implementation of the recommendations contained in the Airport Master Plan will require a continuous effort on the part of the city to maintain facilities and anticipate the need for further development. A sound management system that can work to prevent problems, as well as adequately respond to problems that do occur, will be essential for a successful development program. This section will discuss two fundamental airport management systems that could be considered by the City of Show Low in determining how to operate the airport. Before a decision can be made, we must first analyze the various airport management systems in order to understand the relative strengths and weaknesses of each.

REVIEW OF AIRPORT MANAGEMENT SYSTEMS

Management structures for airports are almost as numerous and diverse as the number and types of airports in this country. The type of management system found at a particular airport is usually based upon such factors as: ownership, size, role, and location. These factors cannot be isolated one from the other in order to determine the best management system for a given airport as they all contribute to the decision to select a particular management system for an airport.

Arizona State Statutes and Federal Regulations must also be considered during the process of deciding upon a management system or implementing an airport management structure (organization). Failure to conform with these laws and regulations will jeopardize the entire development program and seriously erode the economic feasibility of Show Low Municipal Airport.

Small municipal airports with a general aviation role will normally be managed to various degrees under contract by an FBO, city staff not dedicated solely to the airport, or through a full time airport manager employed by the city. As the airport activity increases, it usually attracts more attention and concern from both management and the public. It is at this point when municipal governments may recognize the uniqueness of the airport and solicit assistance, often through an airport advisory committee, to aid in the guidance and development of the airport.

The role of an airport, which may vary from one which supports purely general aviation needs to where air carrier operations predominate, is an important factor in determining the management system of an airport. As the role of the airport becomes

more diversified, the more special interest groups with differing airport needs, airport management becomes more complex. This may cause municipalities to establish airport commissions or authorities to relieve the airport management of these often controversial policy matters.

The location of an airport in a community may also determine the method of management. An airport that serves two or more municipalities may select an airport commission or airport authority management system to relieve any one municipality of the responsibility for operations of the airport. Airports that are located on county or state property within the city limits may also be a reason for selecting a commission or authority management system. The primary reason airport authorities are selected as an airport management system is to reduce municipal, county, or state conflicts over jurisdiction of the airport.

EXISTING MANAGEMENT SYSTEM

The basic management structure that has been in effect over the last several years at Show Low Municipal Airport can be best described as an Airport Advisory Committee/-Airport Manager type system. The airport is one of seven divisions with the Department of Public Services. The airport manager position is a full-time staff position that reports to the Director of Public Services. The Director of Public Services reports directly to the City Manager, who in turn in answerable to the Mayor and City Council.

The Airport Management Advisory Committee is comprised of seven members appointed by the City Council and is represented by citizens from the community at large who are interested in airport affairs. Members of the committee serve at the discretion of the Mayor who may elect to reappoint any or all members of this committee or replace any member with a new member of his choice.

The airport manager is responsible for day-to-day operations, budgeting, and administration. The Airport Management Advisory Committee is responsible for evaluating major policy positions and management practices, and making recommendations to the Mayor and City Council on those matters and issues that require council action.

AIRPORT AUTHORITIES

Airport Authorities provide the greatest autonomy in the operation of the airport. They are usually established when the airport; serves two or more governmental jurisdictions, is sufficiently large and complex, and where the airport generates sufficient revenue to support its own operation. The Airport Authority is governed by a Board of Directors whose jurisdiction is normally the airport boundaries.

The State of Arizona Statutes governing the establishment of an Airport Authority require that it be formed as a private corporation, therefore, members of an airport authority are appointed and not elected. The degree of autonomy and reduction in political interference normally associated with an elected memebership is not necessarily obtained in the Airport Authority constituted by State of Arizona Statutes.

Independent operation and autonomy, predominate reasons for establishing authorities, are influenced by other factors as well. The rights, powers, and responsibilities of the Airport Authority are transferred with the lease from the governmental entity. In the case of Show Low Municipal Airport, all deed restrictions contained in the title to the land would be incumbent on the authority, if the lands were leased to them by the city. Additionally, administrative and financial independence from the city can only be obtained if airport revenues will support the financial, administrative, and legal sub-structure necessary to operate the authority.

An authority can issue revenue bonds to finance airport development. Of course, just the ability to issue such bonds does not mean there is more opportunity to sell them. These bonds must be pledged against the assets of the airport and the financial status of the Airport Authority. The ability of the airport to operate in the black will enter into the bond rating and interest rate computation.

Airport Authorities are authorized to establish contractual and bidding procedures which are independent of the governmental entity which established the authority. However, the City of Show Low could transfer the requirement to use city bidding procedures in the lease with the Airport Authority.

Federal and state bidding procedures are required whenever federal or state funds are used. The complex federal bidding requirements are far more stringent than the bidding procedures in use by the city. The independence from governmental bidding and contractual procedures established by state statute for authorities is more apparent than real. Table 8E provides a side-by-side comparison of the significant management and administrative points concerning Airport Authorities and Manager/Commission type systems.

Table 8E
Comparison of Airport Authority and Airport Commission
Show Low Municipal Airport

ISSUE	AUTHORITY	COMMISSION/CITY
Title to the Airport and Deed Restrictions	Transferred in the Lease from the City Show Low	Not applicable, Title Rests with the City
Administration, Financial and Legal Support	Independent from the City	Supported by City Staff
Source of Revenue for Operating Expenses	*Airport	Airport/City
Ability to Issue Bonds	Revenue Bonds only	G.O., Revenue, and Combination Bonds from the City
Contractual and Bidding Procedures	Must Follow Federal, State, and Possibly City Procedures	Must Follow Federal, State, and City Procedures
Membership and Directorship	Appointed: Board of Directors	Eight Appointed Voting Members and One City Councilman
Decision Making Capability	*Vested in Board of Directors With Approval of Membership	Vested in City Manager or City Council
Capacity to Apply for and Dispense Federal Funds	Applied for through the City	Applied for through the City

* Some Authorities have agreements with and are supported by a municipality. When this is the case, the decision making capability may rest with the municipality.

RECOMMENDATIONS

It is recommended that the City of Show Low retain the present airport management system until the airport is consistently demonstrating financial independence. It is only at this juncture that any significant benefits will be realized by the airport that are unavailable in the current airport management system. An airport authority to be effective, must be supported by airport revenues. Show Low Municipal Airport reported operating losses the past five years and is not expected to produce consistent operating income until after 2000.

It would appear prudent to consider an Airport Authority when the airport has demonstrated an ability to support the associated administrative costs of an authority, possibly during the post 2000 period, unless the city is willing to subsidize the operations of the airport and the Airport Authority. It is not likely that income from airport operations will finance capital improvements until the end of the planning period.

ECONOMIC IMPACT

In addition to the qualitative benefits the White Mountain Region derives from Show Low Municipal Airport in the form of improved transportation services, there are quantifiable benefits as well. An economic impact study was conducted in 1986 to estimate the value of the airport to the economy of Show Low. This study was conducted by airport staff and examined data for the July 1, 1985 through June 30, 1986 time period.

The economic impact study indicated that approximately 44,000 general aviation pilots and passengers traveled to the Show Low area. The average traveler spent $78.85 per day and stayed 1.2 days. This spending amounted to almost $4.2 Million in direct impact during that period. Other statistics that revealed the importance of Show Low Municipal Airport on the economy of the region are illustrated in Table 8F.

Table 8F
Economic Impact Statistics
Show Low Municipal Airport

Direct Spending	$4,163,000
Visitors	44,000 Persons
Average Daily Expendiures	$78.85
Average Length of Stay	1.2 days
Average Expenditures per Trip	$94.62
Wages & Salaries Resulting from Airport Activity	$500,000
Airport Construction (1984 to 1986)	$2,200,000
Total Estimated Impact	$11,800,000

The value of Show Low Municipal Airport to the community can not be overlooked or under appreciated. The airport is not only a transportation asset, but also an economic asset that should be supported and developed. Investment in a safe, efficient, full service airport today can yield impressive returns in the future.

CONTINUOUS PLANNING PROCESS

The successful implementation of the Show Low Municipal Airport Master Plan will require sound judgment on the part of airport management. Among the more important factors influencing management's decisions to carry out a recommendation are scheduling or sequencing, and airport activity. Both of these factors can be used as references in implementation of the plan.

While it was necessary for scheduling and budgeting purposes to focus on the timing of airport development, the actual need for facilities is in fact established by levels of activity. Proper master plan implementation suggests the use of airport activity rather than time as the primary criterion in airport development. However the development must also follow a logical progression so that the development does not create intermediate conflicts in the process.

Experience has indicated that major problems have materialized from strict adherence to schedules rather than demands. These problems center around the inherent inflexibility and inability of this policy to deal with new issues that develop from unforeseen events that may occur after the plan is completed. The format used in the development of this master plan has attempted to deal with this issue by emphasizing that planning is a continuous process that does not end with the completion of the master plan, and recognizing this without invalidating the planning priorities or the sequence of development within the Master Plan.

The primary issues and concepts upon which the Show Low Municipal Airport Master Plan is based should remain current for many years to come. The real value of a usable master plan, however, is that it serves to keep the issues and objectives of airport development in the mind of the user. Consequently, the user is better able to recognize changes and their potential effects on the airport.

Guidelines and worksheets are included in the following section for each future year during the initial stage of development from 1991 through 1995. Summary worksheets are also included for Stage II and Stage III. All estimated development costs are based upon 1989 dollars, therefore, costs must be adjusted by the appropriate inflation rate factor in effect at the particular time of development.

CONTINUOUS PLANNING AIDS

The continuous planning process requires the City of Show Low to consistently monitor the progress of the airport in terms of growth in based aircraft, annual operations and fuel sales. Accurate tracking of this data is important because this growth is critical to the exact timing and need for a significant portion of the proposed airport facilities. The information obtained from this monitoring process will provide the data necessary to determine if development should be accelerated, decelerated, or maintained as scheduled.

On an annual basis, airport management should compile this information and determine the actual number of based aircraft, total amount of fuel sales, and total annual aircraft operations. By having this information reported on a monthly basis the task of tracking activity becomes easier. Use of the Continuous Planning Chart (**Exhibit 8B**) and the Continuous Planning Graph (**Exhibit 8C**) will enable the city to visualize airport activity growth and compare it to the forecast levels. These two exhibits are located at the end of this chapter. **Exhibits**

8D through 8I illustrate the airside and landside development associated with each stage of development.

This continuous planning process data should be entered in the space provided on the yearly airport development schedule. With this information, adjustment in the development schedule can be made to effectively deal with deviations from forecasts or any unique demands that may arise. By closely monitoring the activity and availability of funds with the worksheets provided, the city will be better able justify the future development and to carry out its function of implementing the Show Low Municipal Airport Master Plan.

89MP13-10/12/90

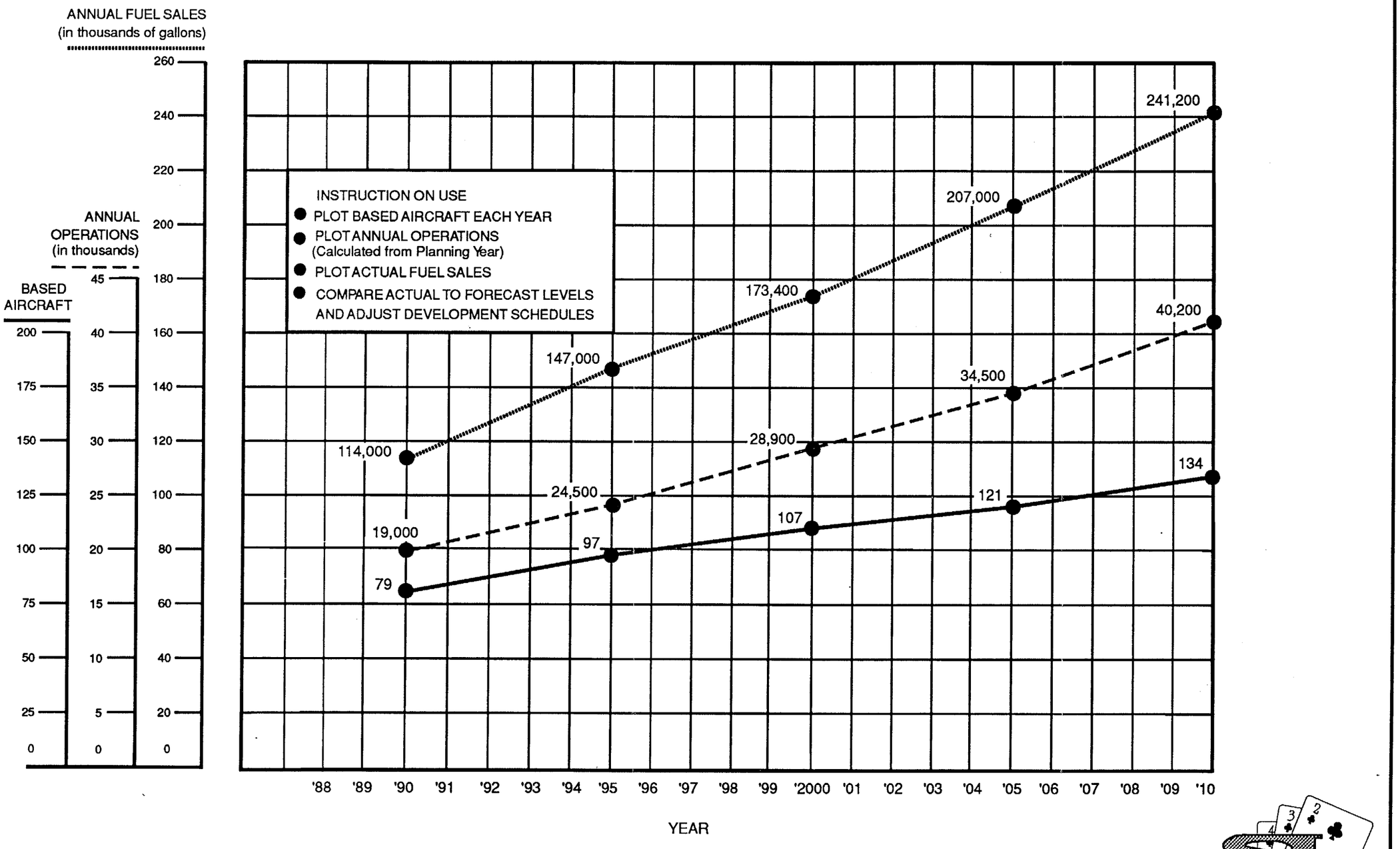
SHOW LOW MUNICIPAL AIRPORT
ACTIVITY PARAMETERS

YEAR	BASED AIRCRAFT		OPERATIONS		FUEL SALES (GALLONS)	
	FORECAST	ACTUAL	FORECAST	ACTUAL	FORECAST	ACTUAL
1989		75		18,000		93,500
1990	79		19,000		114,000	
1991	82		20,100		120,600	
1992	86		21,200		127,200	
1993	90		22,300		133,800	
1994	93		23,400		140,400	
1995	97		24,500		147,000	
1996	99		25,380		152,280	
1997	101		26,260		157,560	
1998	103		27,140		162,840	
1999	105		28,020		168,120	
2000	107		28,900		173,400	
2001	110		30,020		180,120	
2002	113		31,140		186,840	
2003	115		32,260		193,560	
2004	118		33,380		200,280	
2005	121		34,500		207,000	
2006	124		35,640		213,840	
2007	126		36,780		220,680	
2008	129		37,920		227,520	
2009	131		39,060		234,360	
2010	134		40,200		241,200	

Show Low
MUNICIPAL AIRPORT

Exhibit 8B
CONTINUOUS PLANNING CHART

89MP13-10/12/90



Show Low
MUNICIPAL AIRPORT

Exhibit 8C
CONTINUOUS PLANNING GRAPH

Stage II 1996 - 2000
Airport Development Program

STAGE II
1996-2000 Airport Development Program

The table provided below has been designed to note the funds available so that they can be kept in mind while analyzing the development factors outlined for this period on the next few pages.

The table also provides a reminder of other potential sources of development capital that might be used in critical situations or to supplement programmed expenditures.

FAA Discretionary Funds:	$_____
State Airport Funds:	$_____
City of Show Low/Private:	$_____
TOTAL:	$_____

As a reminder, airport development should be keyed to demand (**actual** activity) rather than to a specific time frame (**forecast** activity). The spaces provided below allow actual activity data to be recorded for comparison with the forecast levels. This should be the first step in the process of initiating the recommended development program for this period. Significant difference between forecast and actual activity may justify acceleration or deceleration of the airport development schedule.

Activity	Forecasts	Actuals	Difference
Based Aircraft	(See Exhibit 8B)	_____	_____
Operations	(See Exhibit 8B)	_____	_____
Fuel Flowage (gallons)	(See Exhibit 8B)	_____	_____

Based on the activity comparison above, should the recommended development schedule be maintained? Have new problems, needs, or development potentials occurred which may have an impact on the development program? What adjustments in the development schedule are required to effectively deal with these factors?

In order to maintain the continuity of a staged development plan and to meet forecast activity demand, the following development items are recommended. Each item is numbered so that it can be cross-referenced to Table 8B and on the following airport development layout exhibits, **Exhibits 8F** and **8G**. The cost for each development item includes a 25 percent overhead factor for engineering, administration, and unforeseen circumstances.

STAGE II (Continued)
1996-2000 Airport Development Costs

RECOMMENDED DEVELOPMENT	ESTIMATED COST
1. Expand Terminal Building	$600,000
2. Relocate MIRL Runway 6-24	144,000
3. Widen Runway 6-24	1,000,000
4. Strengthen Runway 6-24	600,000
5. Construct 10 Unit T-Hangar	350,000
6. Update Airport Master Plan	75,000
7. Environmental Assessment	40,000
8. Land Acquisition	300,000
9. Security Fencing	109,000
10. Land Acquisition/Easement	40,000
11. Construct Runway 18-36	1,880,000
12. Construct Parallel Taxiway B	1,000,000
13. Obstruction Removal	400,000
Subtotal	$ 6,538,000

Inflation Adjustment: _____% x $6,138,000 = $_____

Plus or Minus Other Proposed Development:

1. _____ $_____
2. _____ $_____
3. _____ $_____
4. _____ $_____
5. _____ $_____

Total Cost of 1996-2000 Proposed Development: $_____

Since the Federal Fiscal Year is from October through September, efforts should begin immediately to identify the development that will be eligible for state and federal or other funding during this period. The city should have applications submitted early for the maximum funding possible in case additional funds become available. For the same reason, the application should include all the development proposed through the planning year. Although it is unlikely it will all be funded in one year, the FAA or State will be in a position to immediately identify the areas where additional funds can be spent. The following listing illustrates the optimum funding for the recommended development during this period.

STAGE II (Continued)
1996-2000 Development Funding

DEVELOPMENT ITEM	FAA	STATE	CITY/PRIVATE	TOTAL
1. Expand Terminal Building	$200,000	$200,000	$200,000	$600,000
2. Relocate MIRL Runway 6-24	131,126	6,437	6,437	144,000
3. Widen Runway 6-24	910,600	44,700	44,700	1,000,000
4. Strengthen Runway 6-24	546,360	26,820	26,820	600,000
5. Construct 10-Unit T-Hangar	0	0	350,000	350,000
6. Update Airport Master Plan	68,294	3,353	3,353	75,000
7. Environmental Assessment	36,424	1,788	1,788	40,000
8. Land Acquisition	0	0	300,000	300,000
9. Security Fencing	99,256	4,872	4,872	109,000
10. Land Acquisition/Easement	0	0	40,000	40,000
11. Construct Runway 18-36	1,711,928	84,036	84,036	1,880,000
12. Construct Parallel Taxiway B	910,600	44,700	44,700	1,000,000
13. Obstruction Removal	364,240	17,880	17,880	400,000
Subtotal	$4,978,828	$434,586	$1,124,586	$6,538,000

Adjustments:

1._____	$_____	$_____	$_____	$_____
2._____	$_____	$_____	$_____	$_____
3._____	$_____	$_____	$_____	$_____
4._____	$_____	$_____	$_____	$_____
5._____	$_____	$_____	$_____	$_____
Total	$_____	$_____	$_____	$_____

STAGE II
1996-2000 SUMMARY

Stage II Development will focus on increasing landside capacity by expanding the terminal building and T-Hangar construction. Also Runway 6-24 will be widened and strengthened to accommodate large aircraft on a regular basis. The other area of concentration will be development of a new crosswind runway to increase wind coverage and improve safety.

Stage I 1991 - 1995
Airport Development Program

STAGE I
1991 Airport Development Program

The table provided below has been designed to note the funds available so that they can be kept in mind while analyzing the development factors outlined for this period on the next few pages.

The table also provides a reminder of other potential sources of development capital that might be used in critical situations or to supplement programmed expenditures.

FAA Discretionary Funds: $_____
State Airport Funds: $_____
City of Show Low/Private: $_____

TOTAL: $_____

As a reminder, airport development should be keyed to demand (**actual** activity) rather than to a specific time frame (**forecast** activity). The spaces provided below allow actual activity data to be recorded for comparison with the forecast levels. This should be the first step in the process of initiating the recommended development program for this period. Significant difference between forecast and actual activity may justify acceleration or deceleration of the airport development schedule.

Activity	Forecasts	Actuals	Difference
Based Aircraft	82		
Operations	20,100		
Fuel Flowage (gallons)	120,600		

Based on the activity comparison above, should the recommended development schedule be maintained? Have new problems, needs, or development potential occurred which may have an impact on the development program? What adjustments in the development schedule are required to effectively deal with these factors?

In order to maintain the continuity of a staged development plan and to meet forecast demand, the following development items are recommended. Each item is numbered so that it can be cross-referenced to Table 8B and on the following airport development layout exhibits, **Exhibits 8D** and **8E**. The cost for each development item includes a 25 percent overhead factor for engineering, administration, and unforeseen circumstances.

STAGE I (Continued)
1991 Airport Development Costs

RECOMMENDED DEVELOPMENT	ESTIMATED COST
1. Construct FBO Hangar	$375,000
2. Remove Old Hangar	10,000
3. Relocate Rotating Beacon	5,000
4. Reconstruct South Apron	300,000
5. Construct 10-Unit T-Hangar	350,000
6. Environmental Assessment	40,000
Subtotal	$1,080,000

Inflation Adjustment: _____ % x $1,080,000 = $_____

Plus or Minus Other Proposed Development:

1. _____ $_____
2. _____ $_____
3. _____ $_____
4. _____ $_____
5. _____ $_____

Total Cost of 1991 Proposed Development: $_____

Since the Federal Fiscal Year is from October through September, efforts should begin immediately to identify the development that will be eligible for federal and state, or other funding during this period. The city should have applications submitted early for the maximum funding possible in case additional funds become available. For the same reason, the application should include all the development proposed during the planning year. Although it is unlikely all the development will be funded in one year, the FAA or State will be in a position to immediately identify those areas where additional funds can be spent. The following listing illustrates the optimum funding for the recommended development during this period.

STAGE I (Continued)
1991 Development Funding

DEVELOPMENT ITEM	FAA	STATE	CITY/PRIVATE	TOTAL
1. Construct FBO Hangar	$0	$0	$375,000	$375,000
2. Remove Old Hangar	0	0	10,000	10,000
3. Relocate Rotating Beacon	0	0	5,000	5,000
4. Reconstruct South Apron	273,180	13,410	13,410	300,000
5. Construct 10-Unit T-Hangar	0	0	350,000	350,000
6. Environmental Assessment	36,424	1,788	1,788	40,000
Subtotal	$309,604	$15,198	$755,198	$1,080,000

Adjustments:

1._____	$_____	$_____	$_____	$_____
2._____	$_____	$_____	$_____	$_____
3._____	$_____	$_____	$_____	$_____
4._____	$_____	$_____	$_____	$_____
5._____	$_____	$_____	$_____	$_____
Total	$_____	$_____	$_____	$_____

1991 SUMMARY

The 1991 Development Program will begin the establishment of new FBO facilities and services at Show Low Municipal Airport. Private sources are expected to provide new conventional hangar facilities and retail services. The South Apron will be reconstructed and new T-hangars installed to provide aircraft storage.

An Environmental Assessment will be conducted to ensure the proposed improvements to Runway 6-24 will not adversely effect the environment. Approval of the Environmental Assessment will make the following years projects for land acquisition and runway development eligible for FAA grant financing.

STAGE I
1992 Airport Development Program

The table provided below has been designed to note the funds available so that they can be kept in mind while analyzing the development factors outlined for this period on the next few pages.

The table also provides a reminder of other potential sources of development capital that might be used in critical situations or to supplement programmed expenditures.

FAA Discretionary Funds: $_____
State Airport Funds: $_____
City of Show Low/Private: $_____

TOTAL: $_____

As a reminder, airport development should be keyed to demand (**actual** activity) rather than to a specific time frame (**forecast** activity). The spaces provided below allow actual activity data to be recorded for comparison with the forecast levels. This should be the first step in the process of initiating the recommended development program for this period. Significant difference between forecast and actual activity may justify acceleration or deceleration of the airport development schedule.

Activity	Forecasts	Actuals	Difference
Based Aircraft	86	_____	_____
Operations	21,200	_____	_____
Fuel Flowage (gallons)	127,200	_____	_____

Based on the activity comparison above, should the recommended development schedule be maintained? Have new problems, needs, or development potentials occurred which may have an impact on the development program? What adjustments in the development schedule are required to effectively deal with these factors?

_____

_____

_____

In order to maintain the continuity of a staged development plan and to meet forecast activity demand, the following development items are recommended. Each item is numbered so that it can be cross-referenced to Table 8B and on the following airport development layout exhibits, **Exhibits 8D** and 8E. The cost for each development item includes a 25 percent overhead factor for engineering, administration, and unforeseen circumstances.

STAGE I (Continued)
1992 Airport Development Costs

RECOMMENDED DEVELOPMENT	ESTIMATED COST
7. Land Acquisition	$550,000
8. Land Acquisition/Easement	210,000
9. Security Fencing	170,000
10. Expand North Parking Apron	375,000
11. Construct New Terminal	600,000
12. Construct Terminal Access	18,000
Subtotal	$1,923,000

Inflation Adjustment: _____% x $1,923,000 = $_____

Plus or Minus Other Proposed Development:

1. _____ $_____
2. _____ $_____
3. _____ $_____
4. _____ $_____
5. _____ $_____

Total Cost of 1992 Proposed Development: $_____

Since the Federal Fiscal Year is from October through September, efforts should begin immediately to identify the development that will be eligible for state and federal or other funding during this period. The city should have applications submitted early for the maximum funding possible in case additional funds become available. For the same reason, the application should include all the development proposed through the planning year. Although it is unlikely it will all be funded in one year, the FAA or State will be in a position to immediately identify the areas where additional funds can be spent. The following listing illustrates the optimum funding for the recommended development during this period.

STAGE I (Continued)
1992 Development Funding

DEVELOPMENT ITEM	FAA	STATE	CITY/PRIVATE	TOTAL
7. Land Acquisition	$0	$0	$550,000	$550,000
8. Land Acquisition/Easement	0	0	210,000	210,000
9. Security Fencing	154,802	7,599	7,599	170,000
10. Expand North Parking Apron	341,474	16,763	16,763	375,000
11. Construct New Terminal	200,000	200,000	200,000	600,000
12. Construct Terminal Access	16,390	805	805	18,000
Subtotal	$712,666	$225,167	$985,167	$1,923,000

Adjustments:

1._____	$_____	$_____	$_____	$_____
2._____	$_____	$_____	$_____	$_____
3._____	$_____	$_____	$_____	$_____
4._____	$_____	$_____	$_____	$_____
5._____	$_____	$_____	$_____	$_____
Total	$_____	$_____	$_____	$_____

1992 SUMMARY

The proposed land acquisition will enable the airport to extend Runway 6-24 in 1993. The land acquisition would normally be eligible for FAA and ADOT grants. However, due to the complexities and the probability of land trade rather than direct purchase, the eligibility is in question. Consequently, federal and state participation has not been anticipated, but could be available under the proper circumstances. 1992 will also entail the development of a new terminal building for commuter airline passengers and general aviation pilots and passengers. The north aircraft parking apron will be expanded to accommodate commuter airline gate positions and additional transient aircraft.

STAGE I
1993 Airport Development Program

The table provided below has been designed to note the funds available so that they can be kept in mind while analyzing the development factors outlined for this period on the next few pages.

The table also provides a reminder of other potential sources of development capital that might be used in critical situations or to supplement programmed expenditures.

FAA Discretionary Funds: $_____
State Airport Funds: $_____
City of Show Low/Private: $_____

TOTAL: $_____

As a reminder, airport development should be keyed to demand (**actual** activity) rather than to a specific time frame (**forecast** activity). The spaces provided below allow actual activity data to be recorded for comparison with the forecast levels. This should be the first step in the process of initiating the recommended development program for this period. Significant difference between forecast and actual activity may justify acceleration or deceleration of the airport development schedule.

Activity	Forecasts	Actuals	Difference
Based Aircraft	90	_____	_____
Operations	22,300	_____	_____
Fuel Flowage (gallons)	133,800	_____	_____

Based on the activity comparison above, should the recommended development schedule be maintained? Have new problems, needs, or development potentials occurred which may have an impact on the development program? What adjustments in the development schedule are required to effectively deal with these factors?

In order to maintain the continuity of a staged development plan and to meet forecast activity demand, the following development items are recommended. Each item is numbered so that it can be cross-referenced to Table 8B and on the following airport development layout exhibits, **Exhibit 8D** and **8E**. The cost for each development item includes a 25 percent overhead factor for engineering, administration, and unforeseen circumstances.

STAGE I (Continued)
1993 Airport Development Costs

RECOMMENDED DEVELOPMENT	ESTIMATED COST
13. Extend Runway 6-24 (1,000' x 75')	$850,000
14. Relocate REIL's Runway 6	30,000
15. Relocate PAPI's Runway 6	20,000
Subtotal	$900,000

Inflation Adjustment: _____% x $900,000 = $_____

Plus or Minus Other Proposed Development:

1. _____ $_____
2. _____ $_____
3. _____ $_____
4. _____ $_____
5. _____ $_____

Total Cost of 1993 Proposed Development: $_____

Since the Federal Fiscal Year is from October through September, efforts should begin immediately to identify the development that will be eligible for state and federal or other funding during this period. The city should have applications submitted early for the maximum funding possible in case additional funds become available. For the same reason, the application should include all the development proposed through the planning year. Although it is unlikely it will all be funded in one year, the FAA or State will be in a position to immediately identify the areas where additional funds can be spent. The following listing illustrates the optimum funding for the recommended development during this period.

STAGE I (Continued)
1993 Development Funding

DEVELOPMENT ITEM	FAA	STATE	CITY/PRIVATE	TOTAL
13 Extend Runway 6-24 (1,000' x 75')	$774,010	$37,995	$37,995	$850,000
14. Relocate REIL's Runway 6	27,318	1,341	1,341	30,000
15. Relocate PAPI's Runway 6	18,212	894	894	20,000
Subtotal	$819,540	$40,230	$40,230	$900,000

Adjustments:

1._____	$_____	$_____	$_____	$_____
2._____	$_____	$_____	$_____	$_____
3._____	$_____	$_____	$_____	$_____
4._____	$_____	$_____	$_____	$_____
5._____	$_____	$_____	$_____	$_____
Total	$_____	$_____	$_____	$_____

1993 SUMMARY

The extension of Runway 6-24, 1,000 feet westward, will allow a wider range of general aviation aircraft to use Show Low Municipal Airport with a greater degree of safety. The threshold will be displaced 700 feet to provide the necessary runway safety area. The existing REIL's and PAPI's will have to be relocated relative to the displaced threshold location.

STAGE I
1994 Airport Development Program

The table provided below has been designed to note the funds available so that they can be kept in mind while analyzing the development factors outlined for this period on the next few pages.

The table also provides a reminder of other potential sources of development capital that might be used in critical situations or to supplement programmed expenditures.

FAA Discretionary Funds: $_____
State Airport Funds: $_____
City of Show Low/Private: $_____

TOTAL: $_____

As a reminder, airport development should be keyed to demand (**actual** activity) rather than to a specific time frame (**forecast** activity). The spaces provided below allow actual activity data to be recorded for comparison with the forecast levels. This should be the first step in the process of initiating the recommended development program for this period. Significant difference between forecast and actual activity may justify acceleration or deceleration of the airport development schedule.

Activity	Forecasts	Actuals	Difference
Based Aircraft	93	_____	_____
Operations	23,400	_____	_____
Fuel Flowage (gallons)	140,400	_____	_____

Based on the activity comparison above, should the recommended development schedule be maintained? Have new problems, needs, or development potentials occurred which may have an impact on the development program? What adjustments in the development schedule are required to effectively deal with these factors?

In order to maintain the continuity of a staged development plan and to meet forecast activity demand, the following development items are recommended. Each item is numbered so that it can be cross-referenced to Table 8B and on the following airport development layout exhibits, **Exhibits 8D** and **8E**. The cost for each development item includes a 25 percent overhead factor for engineering, administration, and unforeseen circumstances.

STAGE I (Continued)
1994 Airport Development Costs

RECOMMENDED DEVELOPMENT	ESTIMATED COST
16. Extend Runway 6-24 (200'x 75')	$170,000
17. Relocate REIL's Runway 24	30,000
18. Relocate PAPI's Runway 24	20,000
Subtotal	$220,000

Inflation Adjustment: _____% x $220,000 = $_____

Plus or Minus Other Proposed Development:

1. _____ $_____
2. _____ $_____
3. _____ $_____
4. _____ $_____
5. _____ $_____

Total Cost of 1994 Proposed Development: $_____

Since the Federal Fiscal Year is from October through September, efforts should begin immediately to identify the development that will be eligible for state or federal or other funding during this period. The city should have applications submitted early for the maximum funding possible in case additional funds become available. For the same reason, the application should include all the development proposed through the planning year. Although it is unlikely it will all be funded in one year, the FAA or State will be in a position to immediately identify the areas where additional funds can be spent. The following listing illustrates the optimum funding for the recommended development during this period.

STAGE I (Continued)
1994 Development Funding

DEVELOPMENT ITEM	FAA	STATE	CITY/PRIVATE	TOTAL
16. Extend Runway 6-24 (200' x 75')	$154,802	$7,599	$7,599	$170,000
17. Relocate REIL's Runway 24	27,318	1,341	1,341	30,000
18. Relocate PAPI's Runway 24	18,212	894	894	20,000
Subtotal	$200,332	$9,834	$9,834	$220,000

Adjustments:

1._____	$_____	$_____	$_____	$_____
2._____	$_____	$_____	$_____	$_____
3._____	$_____	$_____	$_____	$_____
4._____	$_____	$_____	$_____	$_____
5._____	$_____	$_____	$_____	$_____
Total	$_____	$_____	$_____	$_____

1994 SUMMARY

The 200 foot extension of Runway 6-24 will take the runway to its ultimate length of 7,200 feet. Again the threshold will be displaced to provide the necessary safety area. The threshold of Runway 24 will be displaced 750 feet and the existing REIL's and PAPI's will be relocated to their proper positions relative to the displaced threshold.

STAGE I
1995 Airport Development Program

The table provided below has been designed to note the funds available so that they can be kept in mind while analyzing the development factors outlined for this period on the next few pages.

The table also provides a reminder of other potential sources of development capital that might be used in critical situations or to supplement programmed expenditures.

FAA Discretionary Funds: $_____
State Airport Funds: $_____
City of Show Low/Private: $_____

TOTAL: $_____

As a reminder, airport development should be keyed to demand (**actual** activity) rather than to a specific time frame (**forecast** activity). The spaces provided below allow actual activity data to be recorded for comparison with the forecast levels. This should be the first step in the process of initiating the recommended development program for this period. Significant difference between forecast and actual activity may justify acceleration or deceleration of the airport development schedule.

Activity	Forecasts	Actuals	Difference
Based Aircraft	97	_____	_____
Operations	24,500	_____	_____
Fuel Flowage (gallons)	147,000	_____	_____

Based on the activity comparison above, should the recommended development schedule be maintained? Have new problems, needs, or development potentials occurred which may have an impact on the development program? What adjustments in the development schedule are required to effectively deal with these factors?

_____

_____

_____

In order to maintain the continuity of a staged development plan and to meet forecast activity demand, the following development items are recommended. Each item is numbered so that it can be cross-referenced to Table 8B and on the following airport development layout exhibits, **Exhibit 8D** and **8E**. The cost for each development item includes a 25 percent overhead factor for engineering, administration, and unforeseen circumstances.

STAGE I (Continued)
1995 Airport Development Costs

RECOMMENDED DEVELOPMENT	ESTIMATED COST
19. Construct Parallel Taxiway A	$1,250,000
20. Install MITL Taxiway A	264,000
Subtotal	$1,514,000

Inflation Adjustment: _____% x $1,514,000 = $_____

Plus or Minus Other Proposed Development:

1. _____ $_____
2. _____ $_____
3. _____ $_____
4. _____ $_____
5. _____ $_____

Total Cost of 1995 Proposed Development: $_____

Since the Federal Fiscal Year is from October through September, efforts should begin immediately to identify the development that will be eligible for state and federal or other funding during this period. The city should have applications submitted early for the maximum funding possible in case additional funds become available. For the same reason, the application should include all the development proposed through the planning year. Although it is unlikely it will all be funded in one year, the FAA or State will be in a position to immediately identify the areas where additional funds can be spent. The following listing illustrates the optimum funding for the recommended development during this period.

STAGE I (Continued)
1995 Development Funding

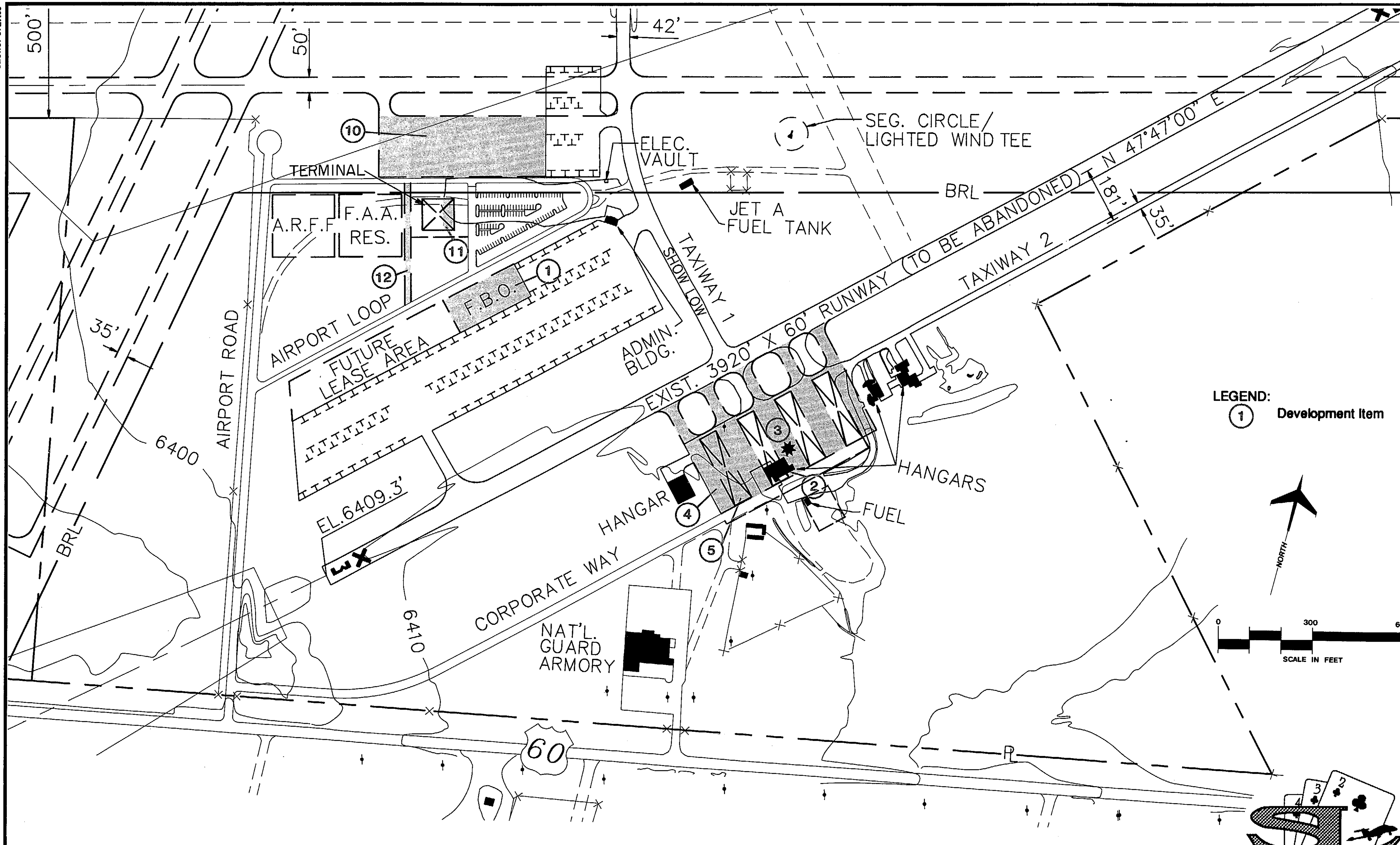
DEVELOPMENT ITEM	FAA	STATE	CITY/PRIVATE	TOTAL
19. Construct Parallel Taxiway A	$1,138,250	$55,875	$55,875	$1,250,000
20. Instruct MITL Taxiway A	240,398	11,801	11,801	264,000
Subtotal	$1,378,648	$67,676	$67,676	$1,514,000

Adjustments:

1._____	$_____	$_____	$_____	$_____
2._____	$_____	$_____	$_____	$_____
3._____	$_____	$_____	$_____	$_____
4._____	$_____	$_____	$_____	$_____
5._____	$_____	$_____	$_____	$_____
Total	$_____	$_____	$_____	$_____

1995 SUMMARY

The construction of a parallel taxiway to serve Runway 6-24 will improve circulation and eliminate the need to "back taxi" on the runway. This taxiway will be lighted for nighttime operations. The completion of the recommended 1995 development will make Runway 6-24 completely capable of accommodating anticipated volumes of aircraft activity. Stage II development will start with upgrading Runway 6-4 to accommodate large aircraft.


89MP13-10/12/90
500'
50'
42'
SEG. CIRCLE/
LIGHTED WIND TEE
ELEC.
VAULT
TERMINAL
BRL
JET A
FUEL TANK
A.R.F.F
F.A.A.
RES.
EXIST. 3920' X 60' RUNWAY (TO BE ABANDONED) N 47°47'00" E
181'
35'
TAXIWAY 2
TAXIWAY 1
SHOW LOW
F.B.O.
AIRPORT LOOP
FUTURE
LEASE AREA
ADMIN.
BLDG.
35'
AIRPORT ROAD
6400
EL.6409.3'
HANGAR
HANGARS
FUEL
CORPORATE WAY
6410
NAT'L.
GUARD
ARMORY
BRL
60
LEGEND:
Development Item
NORTH
0
300
600
SCALE IN FEET

Show Low
MUNICIPAL AIRPORT

Exhibit 8E
STAGE I LANDSIDE DEVELOPMENT

89MP13-10/12/90

LEGEND		
EXISTING	ULTIMATE	DESCRIPTION
		AIRPORT PROPERTY LINE
		AIRPORT REFERENCE POINT (ARP)
		AIRPORT ROTATING BEACON
		AVIGATION EASEMENT (if applicable)
		BUILDING CONSTRUCTION
	BRL	BUILDING RESTRICTION LINE (BRL)
		DRAINAGE
		FACILITY CONSTRUCTION
		FENCING
VASI-4	PAPI-4	NAVIGATIONAL AID INSTALLATION
		RUNWAY END IDENTIFICATION LIGHTS (REIL)
		RUNWAY THRESHOLD LIGHTS
		SECTION CORNER
		SEGMENTED CIRCLE/WIND INDICATOR
1080		TOPOGRAPHIC CONTOURS
		WIND INDICATOR (Lighted)
		POWER POLE

ULTIMATE R.P.Z.
250' X 1000' X 450'
20:1 VISUAL APPROACH

EXISTING R.P.Z.
250' X 1000' X 450'
20:1 VISUAL APPROACH

EXISTING R.P.Z.
500' X 1000' X 800'
20:1 VISUAL APPROACH

ULTIMATE R.P.Z.
1000' X 1700' X 1510'
34:1 NON-PRECISION APPROACH

EXISTING R.P.Z.
500' X 1000' X 800'
20:1 VISUAL APPROACH

ULTIMATE R.P.Z.
1000' X 1700' X 1510'
34:1 NON-PRECISION APPROACH

ULTIMATE R.P.Z.
250' X 1000' X 450'
20:1 VISUAL APPROACH

EXISTING R.P.Z.
250' X 1000' X 450'
20:1 VISUAL APPROACH

EXIST. 6,000' X 75' RUNWAY 7-25

ULT. 7,200' X 100' RUNWAY 7-25

ULT. 3,600' X 75' RUNWAY 16-34

EXIST. 5,600' X 60' RUNWAY (TO BE ABANDONED) 3-21

TAXIWAY 1

TAXIWAY 2

TAXIWAY 3

TAXIWAY 4

TERMINAL

AIRPORT ROAD

CORPORATE WAY

SUMMIT LAKE 19 MI

SPRINGERVILLE 35 MI

FOREST SERVICE LAND

A.P.S. SUB STATION

AIRPORT LOOP

FUTURE LEASE AREA

F.B.O.

ADMIN. BLDG.

HANGARS

FUEL

NAT'L GUARD ARMORY

JET A FUEL TANK

ELEC. VAULT

SEG. CIRCLE/ LIGHTED WIND CONE

RUNWAY VISIBILITY ZONE

EXISTING RUNWAY SAFETY AREA

ULT. RUNWAY SAFETY AREA

EXISTING REILS

EXISTING PAPI-2

ULTIMATE PAPI-2

EXIST. ARP

EL.6401.6' RWY. HIGH PT.

EL.6399'

EL.6396'

EL.6396.87'

EL.6396.67'

EL.6395.89'

EL.6390'

EL.6409.3'

EL.6365'

LEGEND:

(1) Development Item

NORTH

0 1000 2000

SCALE IN FEET

Show Low
MUNICIPAL AIRPORT

Exhibit 8D
STAGE I AIRSIDE DEVELOPMENT

89MP13-10/1290

LEGEND		
EXISTING	ULTIMATE	DESCRIPTION
		AIRPORT PROPERTY LINE
		AIRPORT REFERENCE POINT (ARP)
		AIRPORT ROTATING BEACON
		AVIGATION EASEMENT (if applicable)
		BUILDING CONSTRUCTION
	BRL	BUILDING RESTRICTION LINE (BRL)
		DRAINAGE
		FACILITY CONSTRUCTION
		FENCING
VASI-4	PAPI-4	NAVIGATIONAL AID INSTALLATION
		RUNWAY END IDENTIFICATION LIGHTS (REIL)
		RUNWAY THRESHOLD LIGHTS
		SECTION CORNER
		SEGMENTED CIRCLE/WIND INDICATOR
		TOPOGRAPHIC CONTOURS
		WIND INDICATOR (Lighted)
		POWER POLE

LEGEND:

(1) Development Item

NORTH

0 1000 2000

SCALE IN FEET

Show Low
MUNICIPAL AIRPORT

Exhibit 8F
STAGE II AIRSIDE DEVELOPMENT

89MP13-10/12/90

500'
50'
42'
35'
6400
6410
BRL
AIRPORT ROAD
TERMINAL
A.R.F.F.
F.A.A. RES.
AIRPORT LOOP
F.B.O.
FUTURE LEASE AREA
ADMIN. BLDG.
ELEC. VAULT
SEG. CIRCLE/ LIGHTED WIND TEE
JET A FUEL TANK
TAXIWAY 1
SHOW LOW
EXIST. 3920' X 60' RUNWAY (TO BE ABANDONED)
N 47°47'00" E
181'
35'
TAXIWAY 2
EL.6409.3'
HANGAR
HANGARS
FUEL
CORPORATE WAY
NAT'L. GUARD ARMORY
60
PL

LEGEND:
(1) Development Item

NORTH
0 300 600
SCALE IN FEET

Show Low
MUNICIPAL AIRPORT

Exhibit 8G
STAGE II LANDSIDE DEVELOPMENT

89NP13-101/02/90

LEGEND		
EXISTING	ULTIMATE	DESCRIPTION
		AIRPORT PROPERTY LINE
		AIRPORT REFERENCE POINT (ARP)
		AIRPORT ROTATING BEACON
		AVIGATION EASEMENT (if applicable)
		BUILDING CONSTRUCTION
	BRL	BUILDING RESTRICTION LINE (BRL)
		DRAINAGE
		FACILITY CONSTRUCTION
		FENCING
VAS-4	PAPI-4	NAVIGATIONAL AID INSTALLATION
		RUNWAY END IDENTIFICATION LIGHTS (REIL)
		RUNWAY THRESHOLD LIGHTS
		SECTION CORNER
		SEGMENTED CIRCLE/WIND INDICATOR
1080		TOPOGRAPHIC CONTOURS
		WIND INDICATOR (Lighted)
		POWER POLE

LEGEND:

(1) Development Item

NORTH

0 1000 2000

SCALE IN FEET

Show Low
MUNICIPAL AIRPORT

Exhibit 8H
STAGE III AIRSIDE DEVELOPMENT

89MP13-10/12/90

500'
50'
42'
35'
6400
6410
BRL
AIRPORT ROAD
AIRPORT LOOP
TERMINAL
A.R.F.F.
F.A.A. RES.
AUTO PARK
F.B.O.
FUTURE LEASE AREA
ADMIN. BLDG.
EL.6409.3'
ELEC. VAULT
SEG. CIRCLE/ LIGHTED WIND TEE
JET A FUEL TANK
SHOW LOW
TAXIWAY 1
TAXIWAY 2
BRL
N 47°47'00" E
181'
35'
EXIST. 3920' X 60' RUNWAY (TO BE ABANDONED)
HANGAR
HANGARS
AUTO PARK
FUEL
CORPORATE WAY
NAT'L. GUARD ARMORY
60
7
2
3
4
13
1
11
6
5
12

LEGEND:
(1) Development Item

NORTH

0 300 600
SCALE IN FEET

Show Low
MUNICIPAL AIRPORT

Exhibit 8I
STAGE III LANDSIDE DEVELOPMENT

STAGE III (Continued)
2001-2010 Airport Development Costs

RECOMMENDED DEVELOPMENT	ESTIMATED COST
1. Install MIRL Runway 18-36	$168,000
2. Expand Terminal Building	800,000
3. Expand Auto Parking	60,000
4. Construct ARFF Facility	375,000
5. Construct Auto Parking	30,000
6. Construct 10-Unit T-Hangar	350,000
7. Strengthen North Apron	156,000
8. Install localizer	300,000
9. Install MITL Taxiway B	195,000
10. Install PAPI-2 Runway 18-36	20,000
11. Construct 10-Unit T-Hangar	350,000
12. Expand Fuel Farm	250,000
13. Remove Old Terminal Building	10,000
Subtotal	$3,064,000

Inflation Adjustment: _____% x $3,064,000 = $_____

Plus or Minus Other Proposed Development:

1. _____ $_____
2. _____ $_____
3. _____ $_____
4. _____ $_____

Total Cost of 2001-2010 Proposed Development: $_____

Since the Federal Fiscal Year is from October through September, efforts should begin shortly before the beginning of this stage to identify the development that will be eligible for state and federal or other funding during this period. The city should have applications submitted early for the maximum funding possible in case additional funds become available. For the same reason, the application should include all the development proposed through the planning year. Although it is unlikely it will all be funded in one year, the FAA or State will be in a position to immediately identify the areas where additional funds can be spent. During this final stage it is likely that additional projects will be identified which will require additional funding on the part of the State, the FAA and the City of Show Low.

STAGE III (Continued)
2001-2010 Development Funding

DEVELOPMENT ITEM	FAA	STATE	CITY/PRIVATE	TOTAL
1. Install MIRL Runway 18-36	$152,980	$7,510	$7,510	$168,000
2. Expand Terminal Building	200,000	300,000	300,000	800,000
3. Expand Auto Parking	0	0	60,000	60,000
4. Construct ARFF Facility	341,474	16,763	16,763	375,000
5. Construct Auto Parking	0	0	30,000	30,000
6. Construct 10-Unit T-Hangar	0	0	350,000	350,000
7. Strengthen North Apron	142,054	6,973	6,973	156,000
8. Install Localizer	273,180	13,410	13,410	300,000
9. Install MITL Taxiway B	177,566	8,717	8,717	195,000
10. Install PAPI-2 Runway 18-46	18,212	894	894	20,000
11. Construct 10-Unit T-Hangar	0	0	350,000	350,000
12. Expand Fuel Farm	227,650	11,175	11,175	250,000
13. Remove Old Terminal Building	0	0	10,000	10,000
Subtotal	$1,533,116	$365,442	$1,165,442	$3,064,000

Adjustments:

1._____	$_____	$_____	$_____	$_____
2._____	$_____	$_____	$_____	$_____
3._____	$_____	$_____	$_____	$_____
4._____	$_____	$_____	$_____	$_____
5._____	$_____	$_____	$_____	$_____
Total	$_____	$_____	$_____	$_____

STAGE III
2001-2010 SUMMARY

Stage III will expand commercial service facilities by expanding the terminal building and constructing an aircraft rescue and firefighting facility (ARFF). The North Apron will be strengthened to meet the needs of larger aircraft. An improved instrument approach aid will be installed to improve the poor weather capabilities of the airport. Lighting systems will be installed on Runway 18-36 and Taxiway B. The construction of additional T-Hangars and expansion of the fuel farm will keep pace with expected demands.

Stage III 2001 - 2010
Airport Development Program

STAGE III
2001-2010 Airport Development Program

The table provided below has been designed to note the funds available so that they can be kept in mind while analyzing the development factors outlined for this period on the next few pages.

The table also provides a reminder of other potential sources of development capital that might be used in critical situations or to supplement programmed expenditures.

FAA Discretionary Funds: $_____
State Airport Funds: $_____
City of Show Low/Private: $_____

TOTAL: $_____

As a reminder, airport development should be keyed to demand (**actual** activity) rather than to a specific time frame (**forecast** activity). The spaces provided below allow actual activity data to be recorded for comparison with the forecast levels. This should be the first step in the process of initiating the recommended development program for this period. Significant difference between forecast and actual activity may justify acceleration or deceleration of the airport development schedule.

Activity	Forecasts	Actuals	Difference
Based Aircraft	(See Exhibit 8B)	_____	_____
Operations	(See Exhibit 8B)	_____	_____
Fuel Flowage (gallons)	(See Exhibit 8B)	_____	_____

Based on the activity comparison above, should the recommended development schedule be maintained? Have new problems, needs, or development potentials occurred which may have an impact on the development program? What adjustments in the development schedule are required to effectively deal with these factors?

_____

_____

_____

In order to maintain the continuity of a staged development plan and to meet forecast activity demand, the following development items are recommended. Each item is numbered so that it can be cross referenced to Table 8B and on the following airport development layout exhibits, **Exhibits 8H** and 8I. The cost for each development item includes a 25 percent overhead factor for engineering, administration, and unforeseen circumstances.

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